

WHAT IS CLAIMED IS:

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1. An input device, comprising:  
an input panel for inputting data when  
being touched;  
a current conducting element for  
10 conducting a driving current when the input panel is  
touched, said current conducting element being  
arranged in a region corresponding to a peripheral  
region of the input panel; and  
a magnetic field application unit  
15 configured to apply a magnetic field to the current  
conducting element, the magnetic field application  
unit being arranged in the region corresponding to  
the peripheral region of the input panel, wherein  
the magnetic field intersects the current conducting  
20 element, and a portion of the magnetic field that  
intersects the current conducting element is  
parallel to the input panel.

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2. The input device as claimed in claim 1,  
wherein  
the current conducting element is a  
30 rectangular coil and is fixed in the region  
corresponding to the peripheral region of the input  
panel; and  
the magnetic field application unit is  
arranged to face the current conducting element.

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3. The input device as claimed in claim 1,  
wherein the current conducting element is a printed  
pattern formed on the input panel.

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4. The input device as claimed in claim 1,  
10 wherein

the magnetic field application unit is  
fixed in the region corresponding to the peripheral  
region of the input panel; and

the current conducting element is arranged  
15 to face the magnetic field application unit.

20 5. The input device as claimed in claim 1,  
further comprising:

a contact detection unit for detecting  
contact on the input panel; and

a driving unit for supplying the driving  
25 current to the current conducting element when the  
contact detection unit detects contact on the input  
panel.

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6. The input device as claimed in claim 5,  
wherein the driving current has a predetermined  
frequency.

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7. The input device as claimed in claim 6,  
wherein the driving current has a frequency in an  
audible frequency range.

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8. The input device as claimed in claim 5,  
10 wherein the frequency of the driving current is  
changeable according to a position of the contact on  
the input panel.

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9. The input device as claimed in claim 5,  
wherein

the contact detection unit detects an  
20 electromotive force induced on the current  
conducting element.

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10. The input device as claimed in claim  
1, wherein the input panel is swingable relative to  
a predetermined center.

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11. The input device as claimed in claim  
1, wherein

35 the magnetic field application unit  
includes:

a first permanent magnet; and

a second permanent magnet,  
wherein  
magnetic poles of the first permanent  
magnet are arranged to be opposite to respective  
5 magnetic poles of the second permanent magnet; and  
a direction along the magnetic poles of  
each of the first permanent magnet and the second  
permanent magnet is perpendicular to a plane formed  
by the magnetic field intersecting the current  
10 conducting element.

15 12. A vibrating device, comprising:  
a panel section;  
a current conducting element for  
conducting a driving current to drive the panel  
section to vibrate, said current conducting element  
20 being arranged in a region corresponding to a  
peripheral region of the panel section; and  
a magnetic field application unit  
configured to apply a magnetic field to the current  
conducting element, the magnetic field application  
25 unit being arranged in the region corresponding to  
the peripheral region of the panel section, wherein  
the magnetic field intersects the current conducting  
element, and a portion of the magnetic field that  
intersects the current conducting element is  
30 parallel to the panel section.

35 13. A driving device for driving a panel  
to vibrate, comprising:  
a current conducting element for

conducting a driving current, said current  
conducting element being arranged in a region  
corresponding to a peripheral region of the panel;  
and

5                   a magnetic field application unit  
configured to apply a magnetic field to the current  
conducting element, the magnetic field application  
unit being arranged in the region corresponding to  
the peripheral region of the panel, the magnetic  
10 field intersecting the current conducting element,  
and a portion of the magnetic field that intersects  
the current conducting element being parallel to the  
panel.

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14. The driving device as claimed in  
claim 13, wherein

20                   the current conducting element is a  
rectangular coil and is fixed in the region  
corresponding to the peripheral region of the panel;  
and

                  the magnetic field application unit is  
25 arranged to face the current conducting element.

30                   15. The driving device as claimed in  
claim 13, wherein the current conducting element is  
a printed pattern formed on the panel.

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16. The driving device as claimed in

claim 13, wherein

the magnetic field application unit is  
fixed in the region corresponding to the peripheral  
region of the panel; and

5 the current conducting element is arranged  
to face the magnetic field application unit.

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17. The driving device as claimed in  
claim 13, further comprising:

a contact detection unit for detecting  
contact on the panel; and

15 a driving unit for supplying the driving  
current to the current conducting element when the  
contact detection unit detects contact on the panel.

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18. The driving device as claimed in  
claim 17, wherein the driving current has a  
predetermined frequency.

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19. The driving device as claimed in  
30 claim 18, wherein the driving current has a  
frequency in an audible frequency range.

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20. The driving device as claimed in  
claim 17, wherein the frequency of the driving

current is changeable according to a position of the contact on the panel.

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21. The driving device as claimed in claim 17, wherein

10 the contact detection unit detects an electromotive force induced on the current conducting element.

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22. The driving device as claimed in claim 13, wherein the panel is swingable relative to a predetermined center.

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23. The driving device as claimed in claim 13, wherein

25 the magnetic field application unit includes:

a first permanent magnet; and

a second permanent magnet,

wherein

30 magnetic poles of the first permanent magnet are arranged to be opposite to respective magnetic poles of the second permanent magnet; and

a direction along the magnetic poles of each of the first permanent magnet and the second permanent magnet is perpendicular to a plane formed by the magnetic field intersecting the current conducting element.

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